

positions, which in combination, optimize the spanwise force distribution across the wing for each of the plurality of different flight conditions including a low speed flight condition wherein first selected ones of the deflectable flight control surfaces located at stall-critical spanwise locations are positioned to increase a local coefficient of lift and other deflectable flight control surfaces are positioned to control pitch trim.

6. (Amended) The aircraft as set forth in Claim 1, wherein[.] the plurality of flight conditions include a pitch maneuver wherein the deflectable flight control surfaces are positioned to minimize the bending moment with respect to a bend axis of the wing [includes a plurality of chord lines; one of the different flight conditions comprises high lift at low speed; and, the control surface reconfiguration system functions to maximize the spanwise lifting force without causing stall to occur at any of the chord lines when the wing is in the high lift at low speed flight condition].

11. (Thrice Amended) An aircraft, including:
a wing having a trailing edge and independently deflectable control surfaces located along the trailing edge, the wing being capable during flight of generating a normal lifting force having a spanwise force distribution across the wing; and
reconfiguration means for selectively reconfiguring the control surfaces to respective predetermined positions, which in combination, are effective to optimize the spanwise force distribution across the wing for each of a plurality of different flight conditions including a low speed flight condition wherein selected ones of the deflectable flight control surfaces located at stall-critical spanwise locations are positioned to increase a local coefficient of lift and other deflectable flight control surfaces are positioned to control pitch trim.

16. (Amended) The aircraft as set forth in Claim 11, wherein the plurality of flight conditions include a pitch maneuver wherein the deflectable flight control surfaces are positioned to minimize

the bending moment with respect to a bend axis of the wing[:

the wing includes a plurality of chord lines;

one of the different flight conditions comprises high lift at low speed; and,

the reconfiguration means functions to maximize the spanwise lifting force without causing stall to occur at any of the chord lines when the wing is in the high lift at low speed flight condition].

19. (Thrice Amended) A method for controlling flight of a blended wing-body, tailless aircraft which includes a wing having a trailing edge and independently deflectable flight control surfaces located along the trailing edge which are deflectable in upward and downward directions, the wing being capable during flight of generating a normal lifting force having a spanwise distribution across the wing, the method including the steps of:

predetermining for each of a plurality of different flight conditions the respective position for each of the flight control surfaces, which in combination, optimize the spanwise force distribution across the wing for each of said different flight conditions including a low speed flight condition wherein first selected ones of the deflectable flight control surfaces located at stall-critical spanwise locations are positioned to increase a local coefficient of lift and other deflectable flight control surfaces are positioned to control pitch trim;

subjecting said aircraft to at least one of said different flight control conditions; and

reconfiguring the control surfaces upwardly or downwardly to the respective predetermined positions when subjecting said aircraft to each of said at least one flight control conditions to optimize the spanwise force distribution across the wing.

REMARKS

Upon entry of the above amendments, claims 1-20 will be pending. A version of the amended claims without underlining and brackets is provided in the attached Appendix.

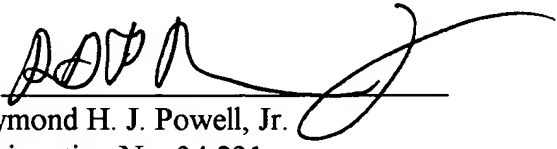
In the Amendment, Claims 1, 11, and 19 are amended to recite the limitations found in claims 6 and 16, as originally filed (albeit in alternative language). Support for the limitations introduced into the amended claims is found in the Summary of the Invention and Abstract, as filed.

It is respectfully submitted that the instant amendment does not introduce new matter into the application.

If the Examiner believes that a teleconference would be useful in expediting the prosecution of this application, the official is hereby invited to telephone the undersigned counsel to arrange for such a conference.

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Respectfully submitted,
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